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Approved for use through 10/31/2002. OMB 0651-0032  
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## UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	
First Inventor	Nathaniel J. Fisch
Title	Segmented Electrode Hall Thruster...
Express Mail Label No.	EK901084284US

### APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1.  Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2.  Applicant claims small entity status.  
See 37 CFR 1.27.
3.  Specification [Total Pages 16]  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4.  Drawing(s) (35 U.S.C. 113) [ Total Sheets 4 ]
5. Oath or Declaration [ Total Pages ]  
 a.  Newly executed (original or copy)  
 b.  Copy from a prior application (37 CFR 1.63 (d))  
     (for continuation/divisional with Box 18 completed)
  - i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6.  Application Data Sheet. See 37 CFR 1.76

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation     Divisional     Continuation-in-part (CIP)

Prior application No.: \_\_\_\_\_ / \_\_\_\_\_

Examiner \_\_\_\_\_ Group Art Unit: \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

### 19. CORRESPONDENCE ADDRESS

<input type="checkbox"/> Customer Number or Bar Code Label	(Insert Customer No. or Attach bar code label here)			<input checked="" type="checkbox"/> Correspondence address below
Name	Nathaniel J. Fisch			
Address	105 Fitzrandolph Road			
City	Princeton	State	New Jersey	Zip Code 08540
Country	USA	Telephone	609-9245384	Fax 609-243-2662
Name (Print/Type)	Nathaniel J. Fisch		Registration No. (Attorney/Agent)	
Signature			Date	4/11/01

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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# FEE TRANSMITTAL

## for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$355.00)

## Complete if Known

Application Number	
Filing Date	
First Named Inventor	Nathaniel J. Fisch
Examiner Name	
Group Art Unit	
Attorney Docket No.	

## METHOD OF PAYMENT

1.  The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number	
Deposit Account Name	

Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17  
 Applicant claims small entity status. See 37 CFR 1.27

2.  Payment Enclosed:

Check  Credit card  Money Order  Other

## FEE CALCULATION

## 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101	710	201 355 Utility filing fee	\$355
106	320	206 160 Design filing fee	
107	490	207 245 Plant filing fee	
108	710	208 355 Reissue filing fee	
114	150	214 75 Provisional filing fee	

SUBTOTAL (1) (\$ 355.00)

## 2. EXTRA CLAIM FEES

Total Claims	-20** =	X	=	Fee from below	Fee Paid
Independent Claims	- 3** =	X	=		
Multiple Dependent					

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103	18	203 9 Claims in excess of 20
102	80	202 40 Independent claims in excess of 3
104	270	204 135 Multiple dependent claim, if not paid
109	80	209 40 ** Reissue independent claims over original patent
110	18	210 9 ** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

\*or number previously paid, if greater; For Reissues, see above

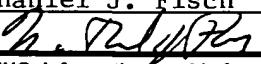
## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105	130	205 65 Surcharge - late filing fee or oath	
127	50	227 25 Surcharge - late provisional filing fee or cover sheet	
139	130	139 130 Non-English specification	
147	2,520	147 2,520 For filing a request for ex parte reexamination	
112	920*	112 920* Requesting publication of SIR prior to Examiner action	
113	1,840*	113 1,840* Requesting publication of SIR after Examiner action	
115	110	215 55 Extension for reply within first month	
116	390	216 195 Extension for reply within second month	
117	890	217 445 Extension for reply within third month	
118	1,390	218 695 Extension for reply within fourth month	
128	1,890	228 945 Extension for reply within fifth month	
119	310	219 155 Notice of Appeal	
120	310	220 155 Filing a brief in support of an appeal	
121	270	221 135 Request for oral hearing	
138	1,510	138 1,510 Petition to institute a public use proceeding	
140	110	240 55 Petition to revive - unavoidable	
141	1,240	241 620 Petition to revive - unintentional	
142	1,240	242 620 Utility issue fee (or reissue)	
143	440	243 220 Design issue fee	
144	600	244 300 Plant issue fee	
122	130	122 130 Petitions to the Commissioner	
123	50	123 50 Processing fee under 37 CFR 1.17(q)	
126	180	126 180 Submission of Information Disclosure Stmt	
581	40	581 40 Recording each patent assignment per property (times number of properties)	
146	710	246 355 Filing a submission after final rejection (37 CFR § 1.129(a))	
149	710	249 355 For each additional invention to be examined (37 CFR § 1.129(b))	
179	710	279 355 Request for Continued Examination (RCE)	
169	900	169 900 Request for expedited examination of a design application	
Other fee (specify) _____			

\*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$)

## SUBMITTED BY

Name (Print/Type)	Nathaniel J. Fisch	Registration No. (Attorney/Agent)		Telephone	609-924-5384
Signature				Date	4/12/01

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assistant Commissioner for Patents  
Box Patent Application  
Washington, D.C. 20231

Date: April 12, 2001

Re: Segmented Electrode Hall Thruster with Reduced Plume  
Nathaniel J. Fisch and Yevgeny Raitses

Sir:

Enclosed for filing in the United States Patent and Trademark Office is the following:

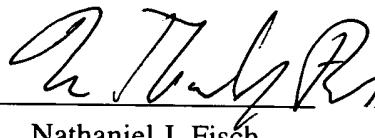
Utility Patent Application Transmittal  
Fee transmittal form and check No. 5344 in the amount of \$355.00.  
Specifications - 16 pages  
Drawings - 4  
Declaration for utility or design patent application  
Postcard receipt

Respectfully submitted,



Nathaniel J. Fisch  
105 Fitzrandolph Road  
Princeton, NJ 08540  
Tel: 609-924-5384  
Fax: 609-243-2662

I hereby certify that this correspondence is being deposited with the United States Postal Service, postage prepaid, as "Express Mail Post Office to Addressee," Mailing label No. EK901084284US to Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231 on April 13, 2001.

By:   
Nathaniel J. Fisch